

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12395 (1988): Disposable Trash Bags of Plastics [PCD 21: Plastics Containers]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR
DISPOSABLE TRASH BAGS OF PLASTICS**1. Scope**

1.1 This standard specifies requirements for disposable trash bags manufactured from unsupported, single-walled plastics film, which can be handled without additional support when they are filled.

1.2 The standard or normal bags are intended for household refuse with a density not exceeding 0.2 kg/dm³.

2. Terminology — For the purpose of this standard, the following definitions shall apply:

2.1 Nominal Length — The length of the bag from its top to the uppermost part of the heat seal at the bottom excluding the width of the heat seal and any surplus material beyond the sealed area.

2.2 Nominal Width — The effective width of the bag with gussets extended, where applicable.

2.3 Nominal Thickness — The average thickness of the wall of the bag.

3. Material

3.1 The bags shall be manufactured from unsupported single walled low-impact resistance, low density polyethylene (LDPE) film of a minimum nominal thickness 40 micron or high molecular high density polyethylene (HMHDPE) film of minimum 25 micron thickness.

3.1.1 The LDPE film shall conform to the requirements of IS : 2508-1984 'Specification for low density polyethylene film (second revision)' (see 4.4, 4.5 and 4.7.1 of IS : 2508-1984) and HMHDPE film shall conform to the requirements of Grade 1 film of IS : 10889-1984 'Specification for high density polyethylene films' (see 4.4.1, 4.4.2 and 4.4.3 of IS : 10889-1984) in respect of tensile strength at break, elongation at break and impact resistance.

3.1.2 The colour of the bag shall be black, if not specified by the purchaser.

4. Dimensions

4.1 Length — The nominal length of the bag shall be between 750 and 1 200 mm as specified by the purchaser. The tolerance on the nominal length shall be ± 2.5 percent.

4.2 Width — The nominal width of the bag (gussets extended, where applicable) shall be between 500 and 830 mm as specified by the purchaser. The tolerance on the nominal width shall be ± 2.5 percent.

4.3 Thickness

4.3.1 Average thickness when determined by the method described in 8.2 of IS : 2508-1984 shall not vary by $+ 15$ percent or $- 10$ percent of the nominal thickness specified by the purchaser.

4.3.2 The spot thickness shall be not less than the nominal thickness minus 20 percent.

5. Performance Requirements

5.1 Resistance to Drop Impact — Ten bags shall be tested from each consignment or lot in accordance with the method given in Appendix A. No split or tear exceeding 50 mm in length shall occur in more than one of the ten bags tested.

6. Information to be Supplied by the Purchaser — The following information shall be supplied by the purchaser to the manufacturer of trash bags while ordering for the bags to this standard:

- a) The type, that is, pillow or gusseted;
- b) The nominal length;
- c) The nominal width;

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- d) Film LDPE/HMHDPE;
- e) The nominal thickness; and
- f) The colour, if other than black.

7. Marking — The packaging and accompanying documents shall be marked with the following information:

- a) Thickness of the polyethylene film;
- b) Colour of the bag;
- c) Length of the bag;
- d) Width of the bag; and
- e) Type of the bag supplied.

7.1 Standard Marking — Details available with the Bureau of Indian Standards.

8. Sampling and Criteria for Conformity

8.1 Lot — In any consignment, all the trash bags produced from the same raw material at one time shall be grouped together to constitute a lot.

8.1.1 Scale of sampling — For ascertaining the conformity of the lot to the requirements of this standard, tests shall be carried out on bags from each lot separately. The number of bags to be sampled from a lot shall be chosen in accordance with Table 1.

TABLE 1 SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

(Clauses 8.1.1 and 8.2.1)

Lot Size	Sample Size	Acceptance Number
Up to 300	8	0
301 to 500	13	1
501 to 1 000	20	1
1 001 and above	32	2

8.1.2 The bags shall be selected at random from the lot and in order to ensure the randomness of selection, the procedure given in IS : 4905-1968 'Methods for random sampling', may be followed.

8.2 Criteria for Conformity

8.2.1 The sample bags selected in accordance with Table 1 shall be examined visually and for dimensions and thickness tests. Any bag failing in any one or more of the requirements shall be termed as defective. The lot shall be accepted if the number of defective bags in the sample does not exceed the acceptance number given in Table 1.

8.2.2 A set of 10 bags as given in the 'Test Method' (5.1) shall be drawn from the lot and shall be subjected to the test. Samples shall pass the test for acceptance of the lot in respect of drop impact test.

A P P E N D I X A

(Clause 5.1)

RESISTANCE TO DROP IMPACT TEST

A-1. Fill each bag with wet wood shavings of dry bulk density between 128 kg/m³ and 114 kg/m³ to three-quarters length of the bag. Add water until the mass of the contents amounts to a corresponding bulk density of 200 kg/m³.

A-2. Exclude excess air from the bag without compressing the contents and close the bag just above the contents, in such a way that the failure of this closure cannot take place during drop testing.

A-3. Drop the bag once on to its butt end from a height of 1.5 m on to a clear, flat concrete surface.

Note — A suitable type of test equipment is shown in Fig. 1.

A-4. Test ten bags from each consignment and examine each bag for splits or tears.

AMENDMENT NO. 1 JUNE 1997
IS 12395 : 1988 SPECIFICATION FOR DISPOSABLE
TRASH BAGS OF PLASTICS

(Page 1, clause 3.1) — Substitute the following for the existing clause:

'3.1 The bags shall be manufactured from unsupported single walled low impact resistance, low density polyethylene (LDPE) film/linear low density polyethylene (LLDPE) film of a minimum nominal thickness 40 micron or high molecular high density polyethylene (HMHDPE) film of minimum 25 micron thickness or a blend thereof. The material may be virgin or recycled.'

(Page 1, clause 3.1.1) — Substitute the following for the existing clause:

'3.1.1 The material used shall meet the requirements of tensile strength at break, elongation at break and impact resistance as given in IS 2508 : 1984 'Specification for low density polyethylene film (second revision)'.'

(PC1021)

AMENDMENT NO. 2 JULY 2003
TO
IS 12395 : 1988 SPECIFICATION FOR DISPOSABLE
TRASH BAGS OF PLASTICS

(*Explanatory Note, Page 3*) — Insert the following new paras at the end:

'A scheme of labelling environment friendly products with the ECO logo has been introduced at the instance of the Ministry of Environment and Forests (MEF), Government of India. The ECO-Mark is being administered by the Bureau of Indian Standards (BIS) under the *BIS Act*, 1986 as per the Resolutions No. 71 dated 21 February 1991 and No. 425 dated 28 October 1992 published in the Gazette of the Government of India. For a product to be eligible for marking with the ECO logo, it shall also carry the ISI Mark of the BIS besides meeting additional environment friendly requirements. For this purpose the Standard Mark would be a single mark being a combination of the ISI Mark and the ECO logo.

This amendment is based on the gazette Notification No. 170 dated 18 May 1996 for plastic products as environment friendly products published in the Gazette of the Government of India. This amendment is, therefore, being issued to this standard to include environment friendly requirements for disposable trash bags of plastics.'

(*Page 2, clause 6*) — Insert the following new clause after 6 and renumber the subsequent clauses:

'7 ADDITIONAL REQUIREMENTS FOR ECO-MARK

7.1 General Requirements

7.1.1 The product shall conform to the requirements for quality, safety and performance prescribed.

7.1.2 The manufacturer shall produce to BIS the consent clearance as per the provisions of *Water (Prevention & Control of Pollution) Act*, 1974 and *Air (Prevention & Control of Pollution) Act*, 1981 along with the authorization, if required under *Environment (Protection) Act*, 1986 and the Rules made thereunder while applying for the ECO-Mark. The manufacturers of plastic wares shall produce documentary evidence with respect to the compliance of regulation under *Drugs and Cosmetic Act*, 1940 and the Rules made thereunder, wherever necessary.

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7.1.3 The product must display a list of critical ingredients in descending order of quantity present expressed as percent of the total. The list of such ingredients shall be identified by Bureau of Indian Standards.

7.1.4 The product packaging shall display in brief the criteria based on which the product has been labelled as 'Environment Friendly'.

7.1.5 The material used for product packaging shall be recyclable or biodegradable.

7.1.6 It shall also suitably mention that ECO-Mark label is applicable only to the packaging material/package, if content is not separately covered under ECO-Mark. It may be stated that ECO-Mark is applicable to the product or packaging material or both.

7.2 Product Specific Requirements

The plastic products shall apart from fillers and reinforcing agents, be made from the minimum of 90 percent, by weight of compatible plastic wastes.

NOTE — The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect.'

(PCD 21)

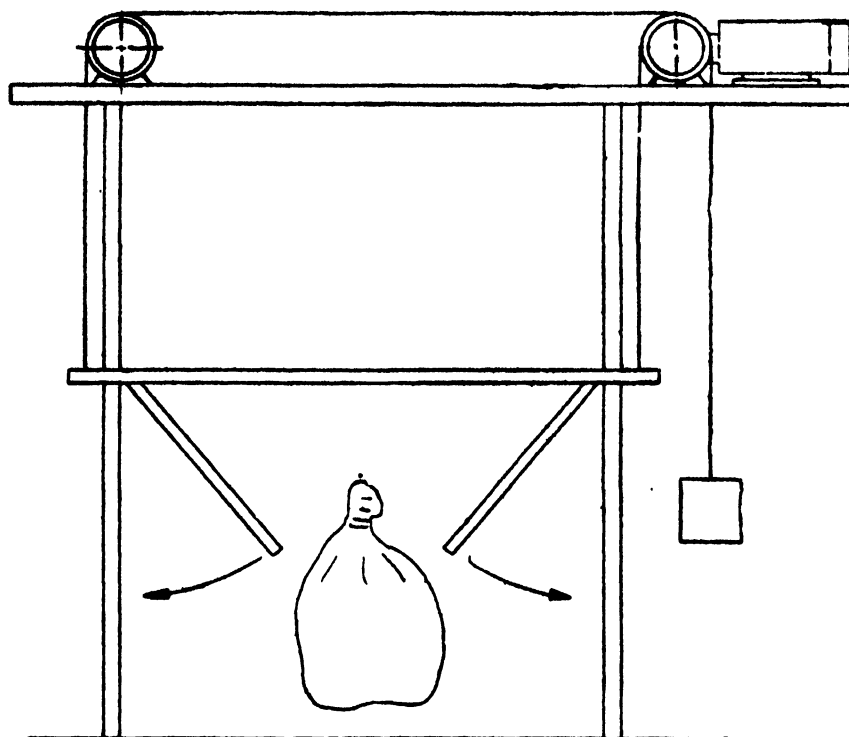


FIG. 1 EQUIPMENT FOR THE DROP IMPACT TEST

EXPLANATORY NOTE

Plastics trash bags offer several advantages, such as promoting cleanliness and hygiene, convenience in handling, resistance to wet refuse and inclement weather and satisfactory disposal by incineration or landfill engineering. They can be used as bin liners in a supporting frame and can be handled without any additional support.